



## North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor  
William G. Ross Jr., Secretary

June 24, 2008

Mr. Danny Bagley  
Edgecombe County Solid Waste Manager  
P.O. Box 10  
Tarboro, NC 27886-0010

Re: Alternate Source Demonstration  
Edgecombe County Landfill, Permit #33-01

Dear Mr. Bagley,

The Solid Waste Section (Section) has reviewed the *Alternate Source Demonstration Report* submitted on behalf of Edgecombe County by S&ME, Inc. for the Edgecombe County Landfill. The alternate source demonstration (ASD) was conducted to prove that the landfill is not the cause of reported lead concentrations in exceedance of the North Carolina 2L Groundwater Standards. In order to address the possibility of additional inorganic exceedances in the future, the entire Appendix I metals suite was also included in the ASD report.

S&ME submitted seven soil samples for Appendix I metals analysis as a component of the ASD. Using the dilution/attenuation factor as calculated in accordance with EPA guidelines, S&ME determined what the expected metals concentrations in groundwater should be based on the soil analysis results. The expected groundwater concentration for each Appendix I metal was compared to the highest historical detection of each Appendix I metal from the previous four sampling events. This comparison was made to determine if groundwater concentrations are influenced by metals present in overlying soils. Based on the comparison, S&ME determined that antimony and silver groundwater concentrations are the only inorganic constituents not influenced by the presence of metals in overlying soils. It was also determined that antimony and silver are not contaminants of concern since neither constituent has yielded concentrations that exceed the groundwater protection standard and 2L Standard, respectively. Based on the ASD, S&ME also determined the historical exceedance of lead is attributed to its presence in soils and cobalt is the only contaminant of concern because its reported soil concentration was not sufficient enough to influence its elevated groundwater concentration.

Based on the evidence presented, the Section approves the ASD. Edgecombe County will not be required to address inorganic contaminants of concern with the exception of cobalt in the corrective action plan for the facility. Inorganic contaminants of concern may need to be addressed if future monitoring events reveal that groundwater concentrations exceed the expected groundwater concentration as calculated in the ASD.

Please contact me at 919-508-8520 or email at [ervin.lane@ncmail.net](mailto:ervin.lane@ncmail.net) if you have any questions or concerns regarding this correspondence. Thank you in advance for your anticipated cooperation in this matter.

Sincerely,



Ervin Lane  
Compliance Hydrogeologist  
Solid Waste Section

cc: Connel D. Ware, S&ME, Inc.  
Mark Poindexter, Field Operations Branch Head  
Dennis Shackelford, Eastern District Supervisor  
Ben Barnes, Environmental Senior Specialist  
Solid Waste Section Central Files